

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions of claims in the application.

1. (Currently amended): A method for fabricating a semiconductor device comprising the steps of:

forming an insulating film having a first opening in a first region;

forming an organic resist film over the insulating film and in the first opening;

forming over the organic resist film a mask film having etching characteristics different from those of the organic resist film and having a [[first]] second opening formed in a [[first]] second region including at least a part of the first region; and

etching the organic resist film with the mask film as a mask,

in the step of etching the organic resist film, the organic resist film being etched with a mixed gas of nitrogen gas and oxygen gas.

2. Cancelled.

3. (Original): A method for fabricating the semiconductor device according to claim 1, wherein

a flow rate ratio of the oxygen gas to a total flow rate of the mixed gas is less than 10%.

4. Cancelled.

5. (Original): A method for fabricating the semiconductor device according to claim 1,

wherein

a flow rate ratio of the oxygen gas to a total flow rate of the mixed gas is 1 - 3%.

6. Cancelled.

7. (Original): A method for fabricating the semiconductor device according to claim 1,

wherein

a pressure inside a chamber for etching the organic resist film is 25 - 50 mTorr.

8. Cancelled.

9. (Withdrawn): A method for fabricating the semiconductor device according to claim 1,

wherein

the mixed gas further contains fluorocarbon gas.

10. Cancelled.

11. (Withdrawn): A method for fabricating the semiconductor device according to claim

9, wherein

a flow rate ratio of the oxygen gas to a total flow rate of the mixed gas is less than 12%.

12. Cancelled.

13. (Withdrawn): A method for fabricating the semiconductor device according to claim

9, wherein

a flow rate ratio of the oxygen gas to a total flow rate of the mixed gas is not more than 5%.

14. Cancelled.

15. (Withdrawn): A method for fabricating the semiconductor device according to claim 9, wherein

a flow rate ratio of the fluorocarbon gas to a total flow rate of the mixed gas is 15 - 25%.

16. Cancelled.

17. (Currently amended): A method for fabricating the semiconductor device according to claim [[2]] 1, wherein

in the step of etching the organic resist film, the organic resist film is etched, left at least on the bottom of the [[second]] first opening.

18. (Currently amended): A method for fabricating the semiconductor device according to claim [[2]] 1, wherein

in the step of forming the organic resist film, the organic resist film is formed, having the surface made flat.

19. (Currently amended): A method for fabricating the semiconductor device according

to claim [[2]] 1, further comprising, after the step of etching the organic resist film, the step of:
etching the insulating film with the organic resist film as a mask.

20. (Currently amended): A method for fabricating the semiconductor device according to claim [[2]] 1, wherein

the insulating film includes one or more films selected from the group consisting of SiO film, SiN film, SiC film and SiOC film.

21. (Currently amended): A method for fabricating the semiconductor device according to claim [[2]] 1, wherein

the [[second]] first region is a region for via-hole to be formed in, and

the [[first]] second region is a region for an interconnection trench to be formed in.